RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: _____ 10/562, 472

Source: _____ PCT

Date Processed by STIC: _____ 01/12/2006

ENTERED

CRF Errors Edited by the STIC Systems Branch

Serial Number: _____10/562, 472_____   CRF Edit Date: _01/12/2006_
Edited by: ___DH___

____ Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

____ Corrected the SEQ ID NO. Sequence numbers edited were:

_____

____ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

_____

__✓__ Deleted: ___ invalid beginning/end-of-file text ; ___ page numbers

____ Inserted mandatory headings/numeric identifiers, specifically:

_____

____ Moved responses to same line as heading/numeric identifier, specifically:

_____

____ Other:

_____
_____
_____

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                 RAW SEQUENCE LISTING              DATE: 01/12/2006
                 PATENT APPLICATION:  US/10/562,472    TIME: 11:42:48

                 Input Set : A:\PTO.DA.txt
                 Output Set: N:\CRF4\01122006\J562472.raw
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      4 <110> APPLICANT: Bayer CropScience AG
      6 <120> TITLE OF INVENTION: Method of identifying fungicidally active compounds based on
fungal
      7       mevalonate kinases
      9 <130> FILE REFERENCE: BCS 03-3035
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/562,472
C--> 11 <141> CURRENT FILING DATE: 2005-12-22
     11 <160> NUMBER OF SEQ ID NOS: 2
     13 <170> SOFTWARE: PatentIn version 3.1
     15 <210> SEQ ID NO: 1
     17 <211> LENGTH: 1341
     19 <212> TYPE: DNA
     21 <213> ORGANISM: Ustilago maydis
     23 <220> FEATURE:
     25 <221> NAME/KEY: CDS
     27 <222> LOCATION: (1)..(1341)
     29 <223> OTHER INFORMATION:
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     33 atg aac cgt gca agg ctc gag acc cgc ggc ggt gaa ggg gaa cct cgc        48
     34 Met Asn Arg Ala Arg Leu Glu Thr Arg Gly Gly Glu Gly Glu Pro Arg
     35 1               5                   10                  15
     37 tcg gct cag gat cac ccg ccg ccg tcg tcg gtg gtt gtc agt gcg cct        96
     38 Ser Ala Gln Asp His Pro Pro Pro Ser Ser Val Val Val Ser Ala Pro
     39             20                  25                  30
     41 ggc aag gtg atc ctt ttc ggt gag cac gca gtg gtg cat ggt att act       144
     42 Gly Lys Val Ile Leu Phe Gly Glu His Ala Val Val His Gly Ile Thr
     43             35                  40                  45
     45 gct gtc gcc gcc tcg gtg gcg ctg cga tgc tac gct aac gta tcg cca       192
     46 Ala Val Ala Ala Ser Val Ala Leu Arg Cys Tyr Ala Asn Val Ser Pro
     47     50                  55                  60
     49 cga gag gat ggc aag att tcg ctc gat ttg cct gat ctc ggc gtg atc       240
     50 Arg Glu Asp Gly Lys Ile Ser Leu Asp Leu Pro Asp Leu Gly Val Ile
     51 65                  70                  75                  80
     53 cac act tgg aac atc gcc gat ctt cct tgg tct gct gtg cct aaa tcc       288
     54 His Thr Trp Asn Ile Ala Asp Leu Pro Trp Ser Ala Val Pro Lys Ser
     55                 85                  90                  95
     57 att caa ggt ggt ggc gcc gta cct gac tcg ctc gac aag acg ctt att       336
     58 Ile Gln Gly Gly Gly Ala Val Pro Asp Ser Leu Asp Lys Thr Leu Ile
     59             100                 105                 110
     61 ggc gcc atc gaa aag gtg gtg ggc gac acg gtc aac gag agc gaa aga       384
     62 Gly Ala Ile Glu Lys Val Val Gly Asp Thr Val Asn Glu Ser Glu Arg
     63             115                 120                 125
     65 agc cat gct gct tcg atc gcc ttt ctg gtg ctt tac atg tgc atc gcc       432
     66 Ser His Ala Ala Ser Ile Ala Phe Leu Val Leu Tyr Met Cys Ile Ala
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RAW SEQUENCE LISTING   DATE: 01/12/2006
PATENT APPLICATION: US/10/562,472   TIME: 11:42:48

Input Set : A:\PTO.DA.txt
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71 145                    150                    155                    160
73 ccc atc ggt gca gga ctc ggc tca agc gcc gcg ctc agc tcg tgc ctc      528
74 Pro Ile Gly Ala Gly Leu Gly Ser Ser Ala Ala Leu Ser Ser Cys Leu
75                    165                    170                    175
77 gct gcg gcg ctc acc atc ctc tat ggt cgc att ccc gct ccg ggc agc      576
78 Ala Ala Ala Leu Thr Ile Leu Tyr Gly Arg Ile Pro Ala Pro Gly Ser
79                    180                    185                    190
81 gaa ctg tca gct gag cac tcg aca cac atc aac gaa tgg gcc ttt ttg      624
82 Glu Leu Ser Ala Glu His Ser Thr His Ile Asn Glu Trp Ala Phe Leu
83                    195                    200                    205
85 tct gaa aag gta att cac ggc acc ccc tcg ggt gtt gac aac acg gtg      672
86 Ser Glu Lys Val Ile His Gly Thr Pro Ser Gly Val Asp Asn Thr Val
87      210                    215                    220
89 gct gtt cat ggc gga gcg atc gct ttc act cgt gct cac cca agc aac      720
90 Ala Val His Gly Gly Ala Ile Ala Phe Thr Arg Ala His Pro Ser Asn
91 225                    230                    235                    240
93 acg ctc aca gcc aac aag atg aac aag ctc aaa ggc ttc tct tcg ttc      768
94 Thr Leu Thr Ala Asn Lys Met Asn Lys Leu Lys Gly Phe Ser Ser Phe
95                    245                    250                    255
97 cgt ttc ctc ctc gtc gac agc tgc gtc ggc cgc gag ggc aag aag ctg      816
98 Arg Phe Leu Leu Val Asp Ser Cys Val Gly Arg Glu Gly Lys Lys Leu
99         260                    265                    270
101 atc gct cac gtt gca gct cag aag gaa tcc gag ccg act cgt gtc aat      864
102 Ile Ala His Val Ala Ala Gln Lys Glu Ser Glu Pro Thr Arg Val Asn
103         275                    280                    285
105 gcg gct ctc gct cga atc cag acg atc gcc gat tcg gcc cag ctc gtg      912
106 Ala Ala Leu Ala Arg Ile Gln Thr Ile Ala Asp Ser Ala Gln Leu Val
107      290                    295                    300
109 ctc act ggc aac tcg ggt ctc tct cgc tcc gag caa gtt gca cag ctt      960
110 Leu Thr Gly Asn Ser Gly Leu Ser Arg Ser Glu Gln Val Ala Gln Leu
111 305                    310                    315                    320
113 cgc gaa ctg atc aag cag aac cat agc gaa ctt gtt ggg ctc gag gta      1008
114 Arg Glu Leu Ile Lys Gln Asn His Ser Glu Leu Val Gly Leu Glu Val
115                    325                    330                    335
117 tcg cac gct tcg ctg gag ttg atc aag aac aag acc gag tcg ttt gca      1056
118 Ser His Ala Ser Leu Glu Leu Ile Lys Asn Lys Thr Glu Ser Phe Ala
119         340                    345                    350
121 ccc gat cag ctg gct act aag ctc aca ggt gcc gga gga gga gga tgt      1104
122 Pro Asp Gln Leu Ala Thr Lys Leu Thr Gly Ala Gly Gly Gly Gly Cys
123         355                    360                    365
125 gca gtt aca ctg ctg ccg gac gac ttt gag gag gag aag gtg aag gag      1152
126 Ala Val Thr Leu Leu Pro Asp Asp Phe Glu Glu Glu Lys Val Lys Glu
127      370                    375                    380
129 ctg atg agc gag ctg gag aat gct ggc ttt aag tgc tac gag acc aga      1200
130 Leu Met Ser Glu Leu Glu Asn Ala Gly Phe Lys Cys Tyr Glu Thr Arg
131 385                    390                    395                    400
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RAW SEQUENCE LISTING   DATE: 01/12/2006
PATENT APPLICATION: US/10/562,472   TIME: 11:42:48

Input Set : A:\PTO.DA.txt
Output Set: N:\CRF4\01122006\J562472.raw

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133 gtg gga ggt gac ggc ttc ggc gtc aag ctt ctg cag gac gaa cag gag    1248
134 Val Gly Gly Asp Gly Phe Gly Val Lys Leu Leu Gln Asp Glu Gln Glu
135             405             410             415
137 gag gcc gag gcc aag ctg cga ttc aag gaa gcc aac gtg agc aac gag    1296
138 Glu Ala Glu Ala Lys Leu Arg Phe Lys Glu Ala Asn Val Ser Asn Glu
139             420             425             430
141 ctg gct gtg tgg gct gat gag ctt gct ggt tgg gta ttt gcc tga       1341
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143         435             440             445
146 <210> SEQ ID NO: 2
148 <211> LENGTH: 446
150 <212> TYPE: PRT
152 <213> ORGANISM: Ustilago maydis
154 <400> SEQUENCE: 2
157 Met Asn Arg Ala Arg Leu Glu Thr Arg Gly Gly Glu Gly Glu Pro Arg
158 1               5               10              15
161 Ser Ala Gln Asp His Pro Pro Pro Ser Ser Val Val Val Ser Ala Pro
162             20              25              30
165 Gly Lys Val Ile Leu Phe Gly Glu His Ala Val Val His Gly Ile Thr
166             35              40              45
169 Ala Val Ala Ala Ser Val Ala Leu Arg Cys Tyr Ala Asn Val Ser Pro
170         50              55              60
173 Arg Glu Asp Gly Lys Ile Ser Leu Asp Leu Pro Asp Leu Gly Val Ile
174 65              70              75              80
177 His Thr Trp Asn Ile Ala Asp Leu Pro Trp Ser Ala Val Pro Lys Ser
178             85              90              95
181 Ile Gln Gly Gly Gly Ala Val Pro Asp Ser Leu Asp Lys Thr Leu Ile
182             100             105             110
185 Gly Ala Ile Glu Lys Val Val Gly Asp Thr Val Asn Glu Ser Glu Arg
186         115             120             125
189 Ser His Ala Ala Ser Ile Ala Phe Leu Val Leu Tyr Met Cys Ile Ala
190         130             135             140
193 Gly Gln Ala Asp Ala Arg Ala Gln Ala Phe Val Leu Arg Ser Ala Leu
194 145             150             155                 160
197 Pro Ile Gly Ala Gly Leu Gly Ser Ser Ala Ala Leu Ser Ser Cys Leu
198             165             170             175
201 Ala Ala Ala Leu Thr Ile Leu Tyr Gly Arg Ile Pro Ala Pro Gly Ser
202         180             185             190
205 Glu Leu Ser Ala Glu His Ser Thr His Ile Asn Glu Trp Ala Phe Leu
206         195             200             205
209 Ser Glu Lys Val Ile His Gly Thr Pro Ser Gly Val Asp Asn Thr Val
210         210             215             220
213 Ala Val His Gly Gly Ala Ile Ala Phe Thr Arg Ala His Pro Ser Asn
214 225             230             235                 240
217 Thr Leu Thr Ala Asn Lys Met Asn Lys Leu Lys Gly Phe Ser Ser Phe
218             245             250             255
221 Arg Phe Leu Leu Val Asp Ser Cys Val Gly Arg Glu Gly Lys Lys Leu
222         260             265             270
225 Ile Ala His Val Ala Ala Gln Lys Glu Ser Glu Pro Thr Arg Val Asn
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226         275                  280                  285
229 Ala Ala Leu Ala Arg Ile Gln Thr Ile Ala Asp Ser Ala Gln Leu Val
230     290                  295                  300
233 Leu Thr Gly Asn Ser Gly Leu Ser Arg Ser Glu Gln Val Ala Gln Leu
234 305                  310                  315                  320
237 Arg Glu Leu Ile Lys Gln Asn His Ser Glu Leu Val Gly Leu Glu Val
238                  325                  330                  335
241 Ser His Ala Ser Leu Glu Leu Ile Lys Asn Lys Thr Glu Ser Phe Ala
242         340                  345                  350
245 Pro Asp Gln Leu Ala Thr Lys Leu Thr Gly Ala Gly Gly Gly Gly Cys
246     355                  360                  365
249 Ala Val Thr Leu Leu Pro Asp Asp Phe Glu Glu Glu Lys Val Lys Glu
250     370                  375                  380
253 Leu Met Ser Glu Leu Glu Asn Ala Gly Phe Lys Cys Tyr Glu Thr Arg
254 385                  390                  395                  400
257 Val Gly Gly Asp Gly Phe Gly Val Lys Leu Leu Gln Asp Glu Gln Glu
258         405                  410                  415
261 Glu Ala Glu Ala Lys Leu Arg Phe Lys Glu Ala Asn Val Ser Asn Glu
262     420                  425                  430
265 Leu Ala Val Trp Ala Asp Glu Leu Ala Gly Trp Val Phe Ala
266     435              440                  445
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VERIFICATION SUMMARY   DATE: 01/12/2006
PATENT APPLICATION: **US/10/562,472**   TIME: 11:42:49

Input Set : **A:\PTO.DA.txt**
Output Set: **N:\CRF4\01122006\J562472.raw**

L:11 M:270 C: Current Application Number differs, Replaced Current Application No
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:31 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:1,Line#:29

Raw Sequence Listing before editing
(for reference only)

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RAW SEQUENCE LISTING              DATE: 01/09/2006
PATENT APPLICATION:  US/10/562,472   TIME: 11:29:40

Input Set : A:\PTO.DA.txt
Output Set: N:\CRF4\01092006\J562472.raw
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    4 <110> APPLICANT: Bayer CropScience AG
    6 <120> TITLE OF INVENTION: Method of identifying fungicidally active compounds based on
fungal
    7        mevalonate kinases
    9 <130> FILE REFERENCE: BCS 03-3035
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/562,472
C--> 11 <141> CURRENT FILING DATE: 2005-12-22
   11 <160> NUMBER OF SEQ ID NOS: 2
   13 <170> SOFTWARE: PatentIn version 3.1
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**Does Not Comply
Corrected Diskette Needed**

$(pg-2)$

ERRORED SEQUENCES

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  146 <210> SEQ ID NO: 2
  148 <211> LENGTH: 446
  150 <212> TYPE: PRT
  152 <213> ORGANISM: Ustilago maydis
  154 <400> SEQUENCE: 2
  157 Met Asn Arg Ala Arg Leu Glu Thr Arg Gly Gly Glu Gly Glu Pro Arg
  158 1               5                  10                 15
  161 Ser Ala Gln Asp His Pro Pro Pro Ser Ser Val Val Val Ser Ala Pro
  162              20                  25                 30
  165 Gly Lys Val Ile Leu Phe Gly Glu His Ala Val Val His Gly Ile Thr
  166         35                  40                 45
  169 Ala Val Ala Ala Ser Val Ala Leu Arg Cys Tyr Ala Asn Val Ser Pro
  170     50                  55                 60
  173 Arg Glu Asp Gly Lys Ile Ser Leu Asp Leu Pro Asp Leu Gly Val Ile
  174 65                  70                  75                 80
  177 His Thr Trp Asn Ile Ala Asp Leu Pro Trp Ser Ala Val Pro Lys Ser
  178             85                  90                 95
  181 Ile Gln Gly Gly Gly Ala Val Pro Asp Ser Leu Asp Lys Thr Leu Ile
  182             100                 105                110
  185 Gly Ala Ile Glu Lys Val Val Gly Asp Thr Val Asn Glu Ser Glu Arg
  186         115                 120                125
  189 Ser His Ala Ala Ser Ile Ala Phe Leu Val Leu Tyr Met Cys Ile Ala
  190     130                 135                140
  193 Gly Gln Ala Asp Ala Arg Ala Gln Ala Phe Val Leu Arg Ser Ala Leu
  194 145                 150                155                160
  197 Pro Ile Gly Ala Gly Leu Gly Ser Ser Ala Ala Leu Ser Ser Cys Leu
  198             165                 170                175
  201 Ala Ala Ala Leu Thr Ile Leu Tyr Gly Arg Ile Pro Ala Pro Gly Ser
  202             180                 185                190
  205 Glu Leu Ser Ala Glu His Ser Thr His Ile Asn Glu Trp Ala Phe Leu
  206             195                 200                205
```

```
209 Ser Glu Lys Val Ile His Gly Thr Pro Ser Gly Val Asp Asn Thr Val
210     210                 215                 220
213 Ala Val His Gly Gly Ala Ile Ala Phe Thr Arg Ala His Pro Ser Asn
214 225                 230                 235                 240
217 Thr Leu Thr Ala Asn Lys Met Asn Lys Leu Lys Gly Phe Ser Ser Phe
218             245                 250                 255
221 Arg Phe Leu Leu Val Asp Ser Cys Val Gly Arg Glu Gly Lys Lys Leu
222         260                 265                 270
225 Ile Ala His Val Ala Ala Gln Lys Glu Ser Glu Pro Thr Arg Val Asn
226         275                 280                 285
229 Ala Ala Leu Ala Arg Ile Gln Thr Ile Ala Asp Ser Ala Gln Leu Val
230     290                 295                 300
233 Leu Thr Gly Asn Ser Gly Leu Ser Arg Ser Glu Gln Val Ala Gln Leu
234 305                 310                 315                 320
237 Arg Glu Leu Ile Lys Gln Asn His Ser Glu Leu Val Gly Leu Glu Val
238             325                 330                 335
241 Ser His Ala Ser Leu Glu Leu Ile Lys Asn Lys Thr Glu Ser Phe Ala
242         340                 345                 350
245 Pro Asp Gln Leu Ala Thr Lys Leu Thr Gly Ala Gly Gly Gly Gly Cys
246         355                 360                 365
249 Ala Val Thr Leu Leu Pro Asp Asp Phe Glu Glu Glu Lys Val Lys Glu
250     370                 375                 380
253 Leu Met Ser Glu Leu Glu Asn Ala Gly Phe Lys Cys Tyr Glu Thr Arg
254 385                 390                 395                 400
257 Val Gly Gly Asp Gly Phe Gly Val Lys Leu Leu Gln Asp Glu Gln Glu
258             405                 410                 415
261 Glu Ala Glu Ala Lys Leu Arg Phe Lys Glu Ala Asn Val Ser Asn Glu
262         420                 425                 430
265 Leu Ala Val Trp Ala Asp Glu Leu Ala Gly Trp Val Phe Ala
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VERIFICATION SUMMARY
PATENT APPLICATION: **US/10/562,472**

DATE: 01/09/2006
TIME: 11:29:41

Input Set : **A:\PTO.DA.txt**
Output Set: **N:\CRF4\01092006\J562472.raw**

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L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:31 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:1,Line#:29
L:273 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:2